

JUL 24 2001



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy LLC**

150 N Main #801
Wichita KS 67202

ORIGINAL

ATTN: Arden Ratzlaff

5-30S-15W Barber KS

Lee Ranch "1-5"

Start Date: 2001.07.16 @ 17:20:05

End Date: 2001.07.17 @ 01:32:05

Job Ticket #: 14808 DST #: 1

RECEIVED

AUG 14 2001

KCC WICHITA

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Abercrombie Energy LLC

Lee Ranch "1-5"

5-30S-15W Barber KS

DST # 1

Cherokee Sd.

2001.07.16

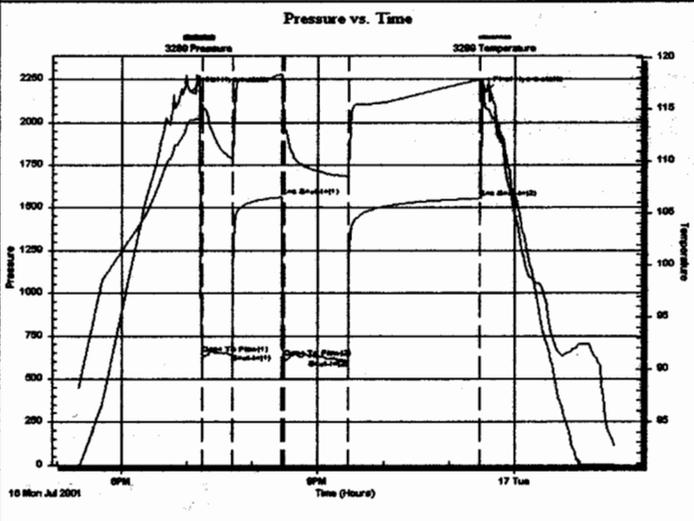
	DRILL STEM TEST REPORT	
	Abercrombie Energy LLC	Lee Ranch "1-5"
	150 N Main #801 Wichita KS 67202	5-30S-15W Barber KS
ATTN: Arden Ratzlaff	Job Ticket: 14808	DST#: 1
	Test Start: 2001.07.16 @ 17:20:05	

GENERAL INFORMATION:

Formation: Cherokee Sd.	Test Type: Conventional Bottom Hole
Deviated: No Whipstock ft (KB)	Tester: Lanny Saloga
Time Tool Opened: 19:14:20	Unit No: 14
Time Test Ended: 01:32:05	Reference Elevations: 1978.00 ft (KB)
Interval: 4549.00 ft (KB) To 4604.00 ft (KB) (TVD)	1973.00 ft (CF)
Total Depth: 4604.00 ft (KB) (TVD)	KB to GR/CF: 5.00 ft
Hole Diameter: 7.88 inches Hole Condition: Fair	

Serial #: 3289	Inside	Capacity: 7000.00 psig
Press@RunDepth: 606.15 psig @ 4551.00 ft (KB)		Last Calib.: 2001.01.23
Start Date: 2001.07.16	End Date: 2001.07.17	Time On Btm: 2001.07.16 @ 19:03:20
Start Time: 17:20:10	End Time: 01:32:04	Time Off Btm: 2001.07.16 @ 23:33:20

TEST COMMENT: Strong BOB in 20 sec. GTS in 2 1/2 min. See flow chart. I.F.P.
 No blow-back. IS.I.P.
 See flow chart. F.F.P. Gas burned.
 Surface blow-back. F.S.I.P.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2180.93	114.00	Initial Hydro-static
11	642.66	115.21	Open To Flow (1)
39	643.22	110.30	Shut-In(1)
84	1563.59	118.40	End Shut-In(1)
86	620.23	113.01	Open To Flow (2)
145	606.15	108.58	Shut-In(2)
265	1556.18	117.89	End Shut-In(2)
270	2179.35	115.07	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
20.00	Gas cut mud 5%g 95%m	0.28
4519.00	GP	63.39

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	140.00	2411.71
Last Gas Rate	0.75	177.00	2989.64
Max. Gas Rate	0.75	193.00	3239.56

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT		TOOL DIAGRAM
	Abercrombie Energy LLC 150 N Main #801 Wichita KS 67202 ATTN: Arden Ratzlaff	Lee Ranch "1-5" 5-30S-15W Barber KS Job Ticket: 14808 Test Start: 2001.07.16 @ 17:20:05	DST#: 1

Tool Information

Drill Pipe:	Length: 4539.00 ft	Diameter: 3.80 inches	Volume: 63.67 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 13000.00 lb
			Total Volume: 63.67 bbl	Tool Chased: ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4549.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	77.00 ft			
Number of Packers:	2	Diameter:	6.75 inches	

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4528.00	
S.I. Tool	5.00			4533.00	
HMV	5.00			4538.00	
Safety Joint	2.00			4540.00	
Packer	4.00			4544.00	22.00 Bottom Of Top Packer
Packer	5.00			4549.00	
Stubb	1.00			4550.00	
Perforations	1.00			4551.00	
Recorder	0.00	3289	inside	4551.00	
Perforations	19.00			4570.00	
C.O. Sub	1.00			4571.00	
Blank Spacing	30.00			4601.00	
Recorder	0.00	10242	inside	4601.00	
C.O. Sub	1.00			4602.00	
Bullnose	2.00			4604.00	55.00 Bottom Packers & Anchor

Total Tool Length: 77.00



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy LLC

Lee Ranch "1-5"

150 N Main #801
Wichita KS 67202

5-30S-15W Barber KS

Job Ticket: 14808

DST#: 1

ATTN: Arden Ratzlaff

Test Start: 2001.07.16 @ 17:20:05

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 12.74 in³
Resistivity: ohm.m
Salinity: 9000.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Gas cut mud 5%g 95%m	0.281
4519.00	GIP	63.390

Total Length: 4539.00 ft Total Volume: 63.671 bbl
Num Fluid Samples: 1 Num Gas Bombs: 1 Serial #: 1
Laboratory Name: Caraway Laboratory Location: Liberal KS
Recovery Comments:



**TRIOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Abercrombie Energy LLC

Lee Ranch "1-5"

150 N Main #801
Wichita KS 67202

5-30S-15W Barber KS

Job Ticket: 14808

DST#: 1

ATTN: Arden Ratzlaff

Test Start: 2001.07.16 @ 17:20:05

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	5	0.75	140.00	2411.71
1	5	0.75	140.00	2411.71
1	10	0.75	177.00	2989.64
1	20	0.75	191.00	3208.32
1	30	0.75	193.00	3239.56
2	5	0.75	152.00	2599.14
2	10	0.75	185.00	3114.60
2	20	0.75	190.00	3192.70
2	30	0.75	183.00	3083.36
2	40	0.75	180.00	3036.50
2	50	0.75	177.00	2989.64

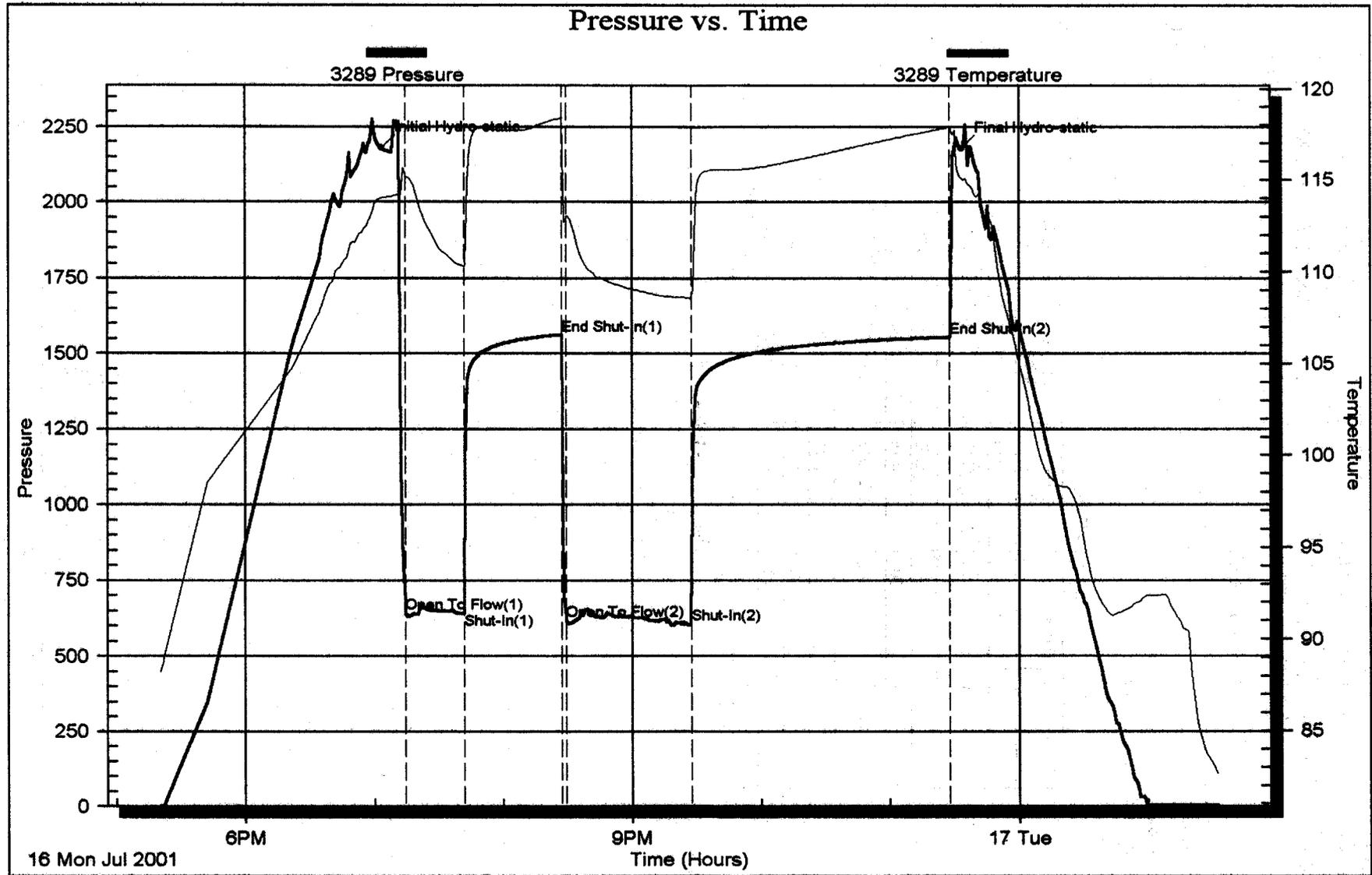
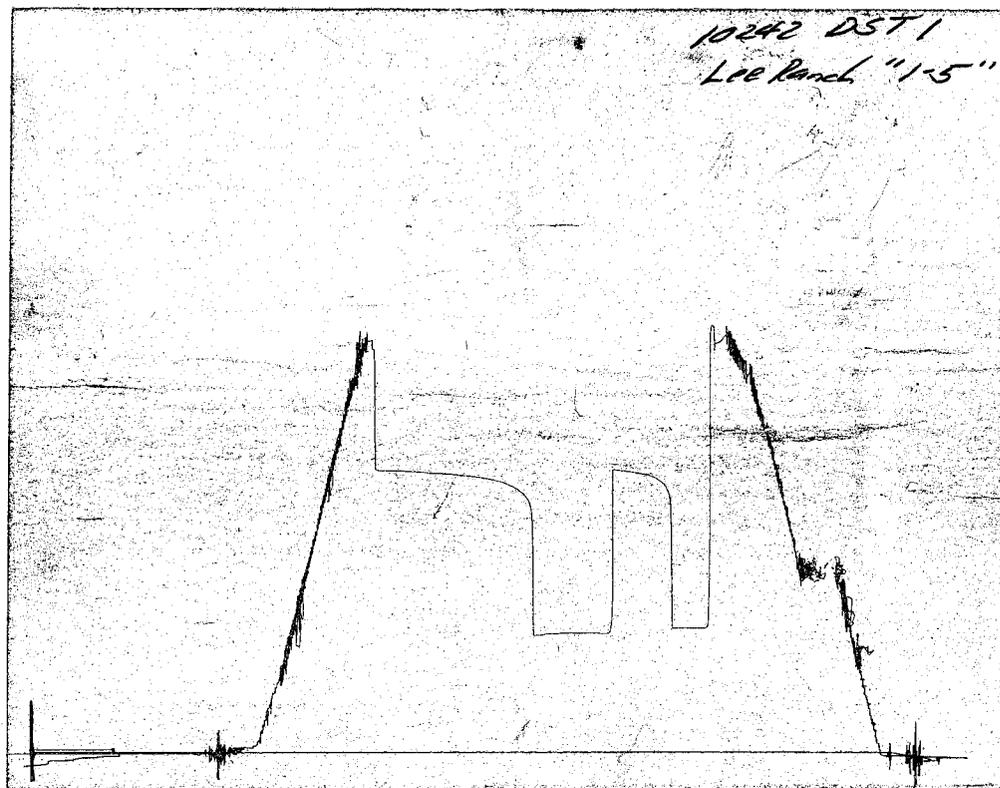
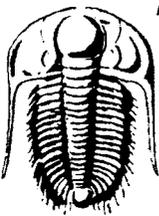


CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 14808

Test Ticket

Well Name & No. Lee Ranch "1-5" Test No. 1 Date 7-16-2001
 Company Abbeccombe Energy L.L.C. Zone Tested Cherokee Sed.
 Address Wichita, KS 67202 Elevation 1978 KB 1973 GL
 Co. Rep / Geo. Arden Ratzlaff Cont. Duke Rig 2 Est. Ft. of Pay Por. %
 Location: Sec. 5 Twp. 30.S Rge. 15.W Co. Barber State KS
 No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 4549-4604 Initial Str Wt./Lbs. 52000 Unseated Str Wt./Lbs. 52000
 Anchor Length 55' Tool=22' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 13,000
 Top Packer Depth 4544 Tool Weight 2,300
 Bottom Packer Depth 4549 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4604 Wt. Pipe Run Drill Collar Run 0
 Mud Wt. 9.4 LCM 0 Vis. 50 WL 12.8 Drill Pipe Size 4 1/2 KH Ft. Run 45.39 12' up

Blow Description Strong ORR in 20 sec. GTS in 2 1/2 min. See Flow chart. F.F.P.
No blow-back. F.S.T.P.
See Flow chart. F.F.P.
Severe blow-back. F.S.T.P.

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
Rec. <u>20</u> Feet Of <u>Gas cut mud</u>	<u>4519</u>	<u>5</u> %gas	%oil %water <u>95</u> %mud
Rec. <u> </u> Feet Of <u> </u>		%gas	%oil %water %mud
Rec. <u> </u> Feet Of <u> </u>		%gas	%oil %water %mud
Rec. <u> </u> Feet Of <u> </u>		%gas	%oil %water %mud
Rec. <u> </u> Feet Of <u> </u>		%gas	%oil %water %mud

BHT 117 °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 9,000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>2180</u>	<u>2180</u>		<u>3289 "17:20"</u>	<u>3:20 PM</u>
(B) First Initial Flow Pressure	<u>642</u>	<u>642</u>		(depth) <u>4551</u>	T-Started <u>5:20 PM</u>
(C) First Final Flow Pressure	<u>643</u>	<u>643</u>		Recorder No. <u>10242</u>	T-Open <u>7:10 PM</u>
(D) Initial Shut-In Pressure	<u>1563</u>	<u>1563</u>		(depth) <u>4601</u>	T-Pulled <u>11:25 PM</u>
(E) Second Initial Flow Pressure	<u>620</u>	<u>620</u>		Recorder No. <u> </u>	T-Out <u>1:40 A.M.</u>
(F) Second Final Flow Pressure	<u>606</u>	<u>606</u>		(depth) <u> </u>	T-Off Location <u> </u>
(G) Final Shut-in Pressure	<u>1556</u>	<u>1556</u>		Initial Opening <u>30</u>	Test <u>800</u> ✓
(Q) Final Hydrostatic Mud	<u>2179</u>	<u>2179</u>		Initial Shut-in <u>45</u>	Jars <u>NA</u>

71611720.289

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Arden Ratzlaff

Our Representative James A. Selby

Final Flow 60 Safety Joint 50 ✓
 Final Shut-in 120 Straddle
 Circ. Sub
 Sampler
 Extra Packer
 Elec. Rec. 150 ✓
 Mileage 35 ✓
 Other 1 Hr ✓
 TOTAL PRICE \$ 1,065.00



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy LLC**

150 N Main #801
Wichita KS 67202

ATTN: Arden Ratzlaff

5-30S-15W Barber KS

Lee Ranch "1-5"

Start Date: 2001.07.17 @ 17:28:03

End Date: 2001.07.18 @ 01:03:33

Job Ticket #: 14809 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Abercrombie Energy LLC

150 N Main #801
Wichita KS 67202

ATTN: Arden Ratzlaff

Lee Ranch "1-5"

5-30S-15W Barber KS

Job Ticket: 14809 DST#: 2

Test Start: 2001.07.17 @ 17:28:03

GENERAL INFORMATION:

Formation: **Viola**

Deviated: **No** Whipstock: ft (KB)

Time Tool Opened: 19:08:48

Time Test Ended: 01:03:33

Interval: **4679.00 ft (KB) To 4704.00 ft (KB) (TVD)**

Total Depth: **4704.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Test Type: **Conventional Bottom Hole**

Tester: **Lanny Saloga**

Unit No: **14**

Reference Elevations: 1978.00 ft (KB)

 1973.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 3289 **Inside**

Press@RunDepth: 21.43 psig @ 4681.00 ft (KB)

Start Date: 2001.07.17 End Date: 2001.07.18

Start Time: 17:28:08 End Time: 01:03:32

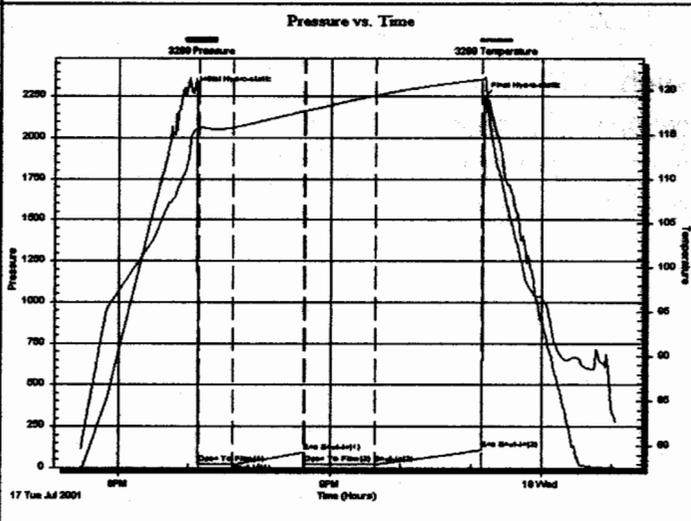
Capacity: 7000.00 psig

Last Calib.: 2001.01.23

Time On Btm: 2001.07.17 @ 19:02:48

Time Off Btm: 2001.07.17 @ 23:10:03

TEST COMMENT: Surface blow built slightly. I.F.P.
Surface blow built to 1/4" in 15 min. Decreased to surface blow in 60 min. F.F.P.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2282.75	115.09	Initial Hydro-static
6	20.87	115.88	Open To Flow (1)
35	21.21	115.82	Shut-In(1)
95	93.23	117.65	End Shut-In(1)
96	20.49	117.69	Open To Flow (2)
156	21.43	119.42	Shut-In(2)
246	108.79	121.21	End Shut-In(2)
248	2245.76	121.25	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
15.00	Very slt G cut M w /scum Oil 2%G 98%M	0.21

Gas Rates			
	Choke(inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy LLC

Lee Ranch "1-5"

150 N Main #801
Wichita KS 67202

5-30S-15W Barber KS

Job Ticket: 14809

DST#: 2

ATTN: Arden Ratzlaff

Test Start: 2001.07.17 @ 17:28:03

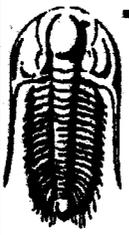
Tool Information

Drill Pipe:	Length: 4663.00 ft	Diameter: 3.80 inches	Volume: 65.41 bbl	Tool Weight: 1800.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 18000.00 lb
			Total Volume: 65.41 bbl	Tool Chased: ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4679.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	47.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4658.00	
S.I. Tool	5.00			4663.00	
HMV	5.00			4668.00	
Safety Joint	2.00			4670.00	
Packer	4.00			4674.00	22.00 Bottom Of Top Packer
Packer	5.00			4679.00	
Stubb	1.00			4680.00	
Perforations	1.00			4681.00	
Recorder	0.00	3289	Inside	4681.00	
Perforations	21.00			4702.00	
Recorder	0.00	10242	Inside	4702.00	
Bullnose	2.00			4704.00	25.00 Bottom Packers & Anchor

Total Tool Length: 47.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy LLC

Lee Ranch "1-5"

150 N Main #801
Wichita KS 67202

5-30S-15W Barber KS

Job Ticket: 14809

DST#: 2

ATTN: Arden Ratzlaff

Test Start: 2001.07.17 @ 17:28:03

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil Apt:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.76 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 9000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

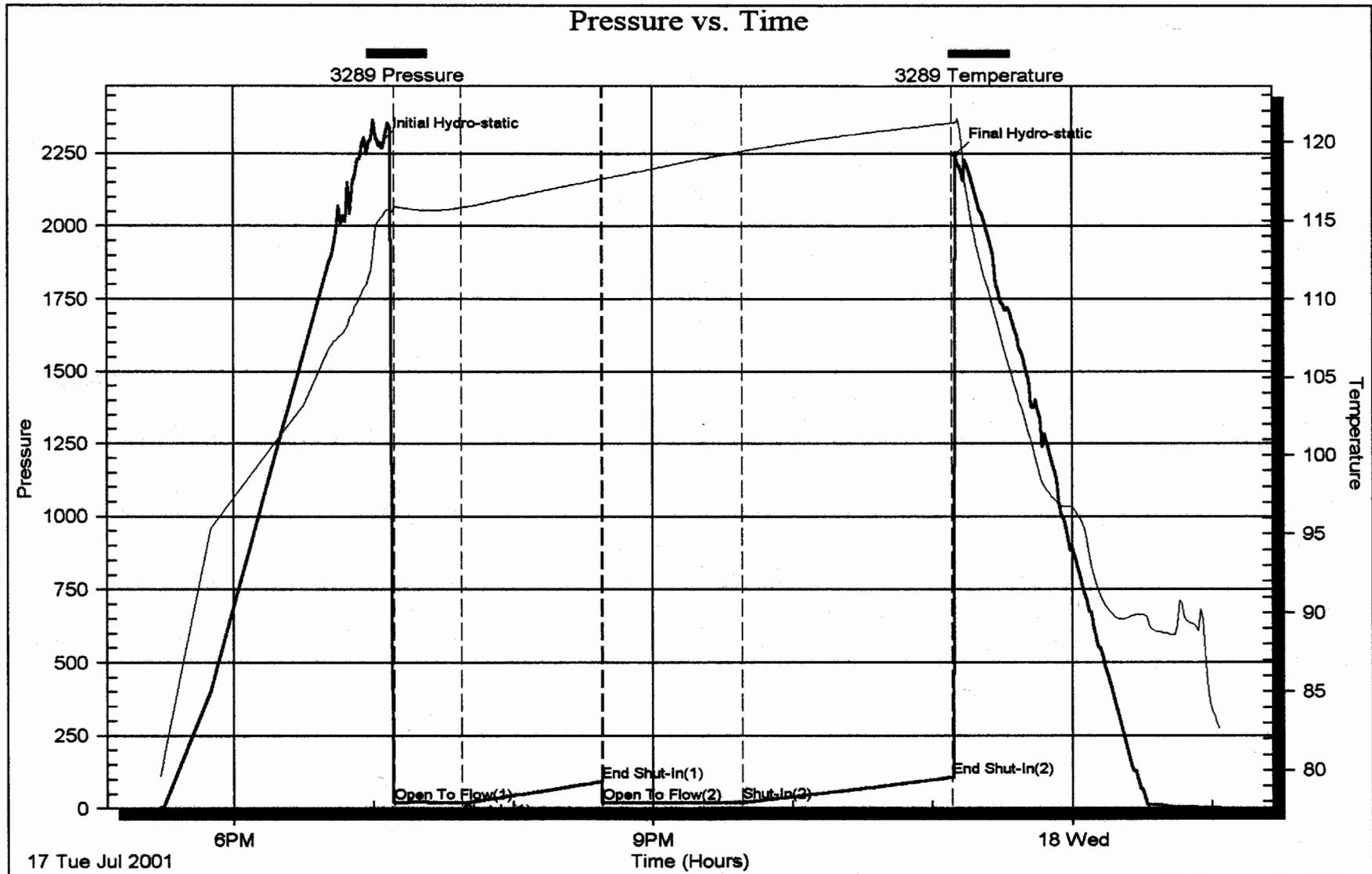
Length ft	Description	Volume bbl
15.00	Very slt G cut Mw /scum Oil 2%G 98%M	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:





**TRIOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Abercrombie Energy LLC

Lee Ranch "1-5"

150 N Main #801
Wichita KS 67202

5-30S-15W Barber KS

Job Ticket: 14808

DST#: 1

ATTN: Arden Ratzlaff

Test Start: 2001.07.16 @ 17:20:05

Gas Rates Information

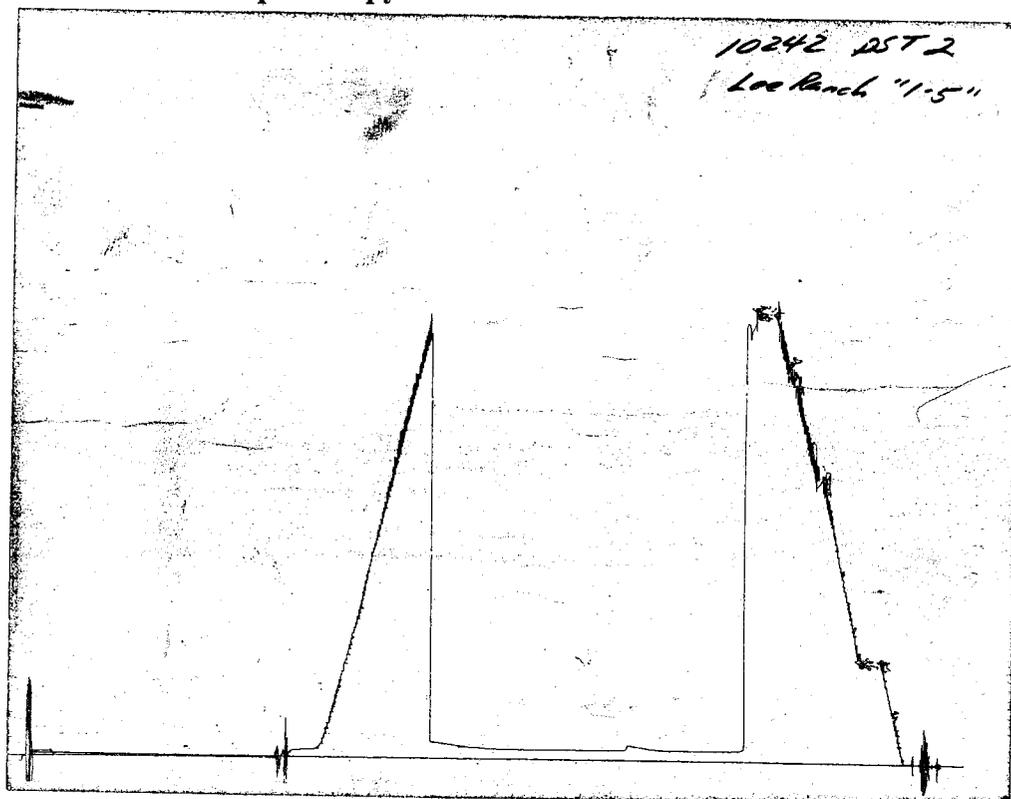
Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

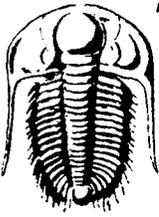
Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	5	0.75	140.00	2411.71
1	5	0.75	140.00	2411.71
1	10	0.75	177.00	2989.64
1	20	0.75	191.00	3208.32
1	30	0.75	193.00	3239.56
2	5	0.75	152.00	2599.14
2	10	0.75	185.00	3114.60
2	20	0.75	190.00	3192.70
2	30	0.75	183.00	3083.36
2	40	0.75	180.00	3036.50
2	50	0.75	177.00	2989.64

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 14809

Test Ticket

Well Name & No. Lee Ranch "1-5" Test No. 2 Date 7-17-2001
 Company Abercrombie Energy L.L.C. Zone Tested Viala
 Address Wichita Ks. 67202 Elevation 1978 KB 1973 GL
 Co. Rep / Geo. Arden Ratzlaff Cont. Duke Rig 2 Est. Ft. of Pay Por. %
 Location: Sec. 5 Twp. 30S Rge. 15W Co. Barber State Ks
 No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 4679-4704 Initial Str Wt./Lbs. 52000 Unseated Str Wt./Lbs. 52000
 Anchor Length 25' Tool = 22' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 18,000
 Top Packer Depth 4674 Tool Weight 1,800
 Bottom Packer Depth 4679 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4704 Wt. Pipe Run Drill Collar Run 0
 Mud Wt. 9.2 LCM 0 Vis. 5.3 WL 10.8 Drill Pipe Size 4 1/2 XH Ft. Run 4663 6' up
 Blow Description Surface blow built slightly. T.F.P.

Surface blow built to "4" in 15 min. Decreased to surface blow in 60 min. T.F.P.

Recovery — Total Feet 15 GIP 0 Ft. in DC 0 Ft. in DP 15
 Rec. 15 Feet Of Very slickens and mud %gas %oil %water 98 %mud
 Rec. Feet Of ↓ w/ sound oil %gas %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 BHT 121 °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 9,000 ppm System

	AK-1	Alpine			
(A) Initial Hydrostatic Mud	<u>2282</u>	PSI	Recorder No. <u>3289 "17:28"</u>	T-On Location	<u>4:40 PM</u>
(B) First Initial Flow Pressure	<u>20</u>	PSI	(depth) <u>4681</u>	T-Started	<u>5:28 P.M.</u>
(C) First Final Flow Pressure	<u>21</u>	PSI	Recorder No. <u>10242</u>	T-Open	<u>7:10 P.M.</u>
(D) Initial Shut-In Pressure	<u>93</u>	PSI	(depth) <u>4701</u>	T-Pulled	<u>11:10 P.M.</u>
(E) Second Initial Flow Pressure	<u>20</u>	PSI	Recorder No. <u> </u>	T-Out	<u>1:30 A.M.</u>
(F) Second Final Flow Pressure	<u>21</u>	PSI	(depth) <u> </u>	T-Off Location	<u> </u>
(G) Final Shut-in Pressure	<u>108</u>	PSI	Initial Opening <u>30</u>	Test	<u>800</u> ✓
(Q) Final Hydrostatic Mud	<u>2245</u>	PSI	Initial Shut-in <u>60</u>	Jars	<u> </u>
			Final Flow <u>60</u>	Safety Joint	<u>150</u> ✓
			Final Shut-in <u>90</u>	Straddle	<u> </u>
				Circ. Sub	<u> </u>
				Sampler	<u> </u>
				Extra Packer	<u> </u>
				Elec. Rec.	<u>150</u> ✓
				Mileage	<u>35</u> ✓
				Other	<u> </u>

71711728.289

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Arden Ratzlaff

Our Representative Garrett S. Salge

TOTAL PRICE \$ 1035.00

NATURAL GAS ANALYSIS REPORT

Sampled by:
 Trilobite Testing, L. L. C.
 Hays, Kansas
 Scott City, Kansas
 Phone: 800-728-5369
 Fax: 913-625-5620

Analyzed by:
 Caraway Analytical, Inc
 P. O. Box 2137
 Liberal, Kansas 67905
 Phone: 316-624-5389
 Fax: 316-626-7108

Lab Number: 20013147		Analyzed: 07/18/01	
Sample From:	Lee Ranch 1-5 DST 1	Pressure:	
Producer:	Abercrombie Energy, L. L. C.	Temperature:	
Date: 07/16/01		Location: 5-30-15	
Time:		County:	Barber
Sampler:	Lanny	State:	Kansas
Source:		Formation:	Cher Sand

	Mole %	GPM
Helium	He: 1.498	0.000
Hydrogen	H2: 0.000	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 38.342	0.000
Carbon Dioxide	CO2: 0.055	0.000
Methane	C1: 51.552	0.000
Ethane	C2: 3.922	1.049
Propane	C3: 2.915	0.803
Iso Butane	iC4: 0.421	0.138
Normal Butane	nC4: 0.873	0.275
Iso Pentane	iC5: 0.122	0.045
Normal Pentane	nC5: 0.192	0.070
Hexanes Plus	C6+: 0.108	0.047

TOTAL: 100.000 2.426

Z Fact: 0.9984

SP.GR.: 0.7832

BTU (SAT): 713.9 @ 14.73 psia
 BTU (DRY): 726.5 @ 14.73 psia
 OCTANE RATING: 75.3

COMMENTS:

0.000